

Technical Working Party for Fruit Crops

TWF/55/9

Fifty-Fifth Session**Virtual meeting, June 3 to 6, 2024****Original:** English**Date:** June 5, 2024

REPORT*Adopted by the Technical Working Party for Fruit Crops**Disclaimer: this document does not represent UPOV policies or guidance*Opening of the session

1. The Technical Working Party for Fruit Crops (TWF) held its fifty-fifth session, from June 3 to 6, 2024, via electronic means. The list of participants is provided in Annex I to this report.
2. The session was opened by Ms. Carole Dirwimmer (France), Chairperson of the TWF, who welcomed the participants.
3. The TWF was welcomed by Ms. Yolanda Huerta, Vice Secretary-General of UPOV.

Adoption of the agenda

4. The TWF adopted the agenda as provided in document TWF/55/1 Rev. 2. The TWF noted that no documents had been received for agenda items 3.4, 3.5, 3.9 and 3.10.

Development of guidance and information materials

5. The TWF considered documents TWP/8/1 and TWF/55/7.

(a) Explanatory Notes

UPOV/EXN/DEN “Explanatory Notes on Variety Denominations under the UPOV Convention” (Revision)

New variety denomination classes for Prunus and situations when a denomination should be compared with other classes within a genus

6. The TWF considered situations when a denomination should be compared with denominations in other classes within a genus or the entire genus, as set out in document TWP/8/1, paragraph 11.
7. The TWF agreed with the TWV, TWO and TWA that the situation described for *Prunus* would be applicable to denominations in other classes within a genus, i.e. denominations of interspecific hybrids should be different from those in the classes of all parent species; and denominations for varieties from one of the “Classes within a genus” should be different from denominations of interspecific hybrids with one parent in that class.
8. The TWF agreed with the TWA that applications filed with information on the genus only for the genera included in the list of “Classes within a genus” should be different from other denominations within that genus.
9. The TWF noted the existence of other species regarded as plums and agreed that the new denomination class 6.2 should include *Prunus cerasifera*, *P. insititia*, *P. maritima* and *P. subcordata*.

10. The TWF agreed that the UPOV codes for interspecific hybrids *Prunus* should be indicated in the GENIE database as belonging to the denomination classes of all the parent species.

(b) *TGP Documents*

TGP/5: Section 6 “UPOV Report on Technical Examination and UPOV Variety Description” (Revision)

Subsection “UPOV Variety Description”, item 16 “Similar varieties and differences from these varieties”

11. The TWF considered the additional explanations proposed for inclusion under Item 16 “Similar varieties and differences from these varieties” in the “UPOV Variety Description”, as set out in document TWP/8/1, paragraph 18.

12. The TWF agreed with the TWA that the first proposed additional explanation to item 16 should read: “A similar variety/varieties should be indicated. If no similar variety was identified, ‘none’ should be stated.”

13. The TWF agreed that the situation described in the second proposed additional explanation was already addressed in Section 16, paragraph 2 and should not be included in the guidance.

14. The TWF agreed that the remaining two proposed additional explanations should be replaced by the following: “All characteristics providing distinctness between the closest / similar variety(ies) to the candidate should be provided.”

Subsection “UPOV Variety Description”, item 17 “Additional information”

15. The TWF considered the additional explanations proposed for inclusion under item 17 “Additional Information” in the “UPOV Variety Description”, as set out in document TWP/8/1, paragraph 21.

16. The TWF agreed with the TWV and TWO that the elements provided under item 17 “Additional information” were examples to be considered on a case-by-case basis, as appropriate, according to crop type and variety described.

TGP/7 “Development of Test Guidelines” (Revision)

Additional Standard Wording (ASW) 3 “Explanation of the growing cycle”

17. The TWF agreed with the proposal to amend the standard wording of growing cycle for “fruit species with clearly defined dormant period” in document TGP/7, ASW 3(a), as set out in document TWP/8/1, paragraph 24.

Additional Standard Wording (ASW) 7(b) “Number of plants / parts of plants to be examined”

18. The TWF considered the proposal to amend document TGP/7, ASW 7(b), on the number of parts to be examined from single plants, as set out in document TWP/8/1, paragraph 28.

19. The TWF noted the guidance in document TGP/9 “Examining Distinctness” on number of plants and precision of records and the comments from the TWV, TWO and TWA on possible consequences for international harmonization of not providing a defined number of plant parts to be observed in Test Guidelines.

20. The TWF recalled that the assessment of characteristics in fruit crops was often based on three or five plants. The TWF agreed that sample sizes were increased with additional parts taken from each plant (internal replicates), such as leaves and fruits.

21. The TWF noted that the wording in ASW 7(b) provided a defined number of parts of plants to be observed for all characteristics in the Test Guidelines, unless otherwise indicated. The TWF agreed that certain characteristics such as fruit shape could require higher number of parts to be taken from each plant than defined in ASW 7(b).

22. The TWF considered different approaches to indicate different number of parts to be taken from each plant, such as according to the type of variety (e.g. resulting from crossing or mutation) as provided in the Test Guidelines for Apricot and Maize, explanations for individual characteristics and indication of alternative methods of assessment (e.g. “MS/VG”).

23. The TWF noted the report from France that higher number of parts taken from each plant than defined in Test Guidelines could be used for increased precision of distinctness assessments in some cases. The TWF agreed that such procedure could be used in particular cases and should not increase the sample size determined in Test Guidelines for routine examinations.

24. The TWF agree to invite the expert from France to compile examples when the number of parts required to be taken from each plant could be higher than defined in the Test Guidelines. The TWF agreed to invite the expert from France to explore options to indicate that the assessment of characteristics could be performed on different sample sizes according to the level of precision required.

Guidance Note (GN) 28 "Example Varieties" – Example varieties for asterisked quantitative characteristics when illustrations are provided

25. The TWF considered document TWF/55/8, presented by an expert from Germany.

26. The TWF agreed with the TWV and TWA that Test Guidelines should have as much information as possible, including both example varieties and illustrations.

27. The TWF noted that restrictions to international movement of plant material could restrict access to plant material of example varieties of fruit crops. The TWF agreed with the TWV, TWA and TWO that illustrations were particularly useful when the example varieties in Test Guidelines were not available or not suitable for cultivation in certain growing conditions.

28. The TWF considered situations when illustrations could replace example varieties and recalled guidance on the development of regional sets when a universal set of example varieties applicable to all UPOV members was not appropriate.

TGP/12: Guidance on Certain Physiological Characteristics

29. The TWF agreed with the proposal to amend document TGP/12 "Guidance on Certain Physiological Characteristics" to include a table of equivalence of states of expression in Test Guidelines with terminology used in the vegetable seed sector, as set out in document TWP/8/1, paragraph 34.

30. The TWF agreed with the TWA that guidance in document TGP/12 should clarify that the use of the table should be determined on a case-by-case basis and the terminology used in the vegetable sector would not represent a general equivalence of states of expression in Test Guidelines.

(c) Access to plant material for the purpose of management of variety collections and DUS examination

31. The TWF considered the proposed elements for inclusion in requests for the submission of plant material of candidate varieties and varieties of common knowledge for DUS examination, as set out in document TWP/8/1, paragraph 41.

32. The TWF agreed to invite further information on experiences with requests for the submission of plant material to be reported in future meetings.

Number of growing cycles and concluding examination of fruit crops

33. The TWF received a presentation on "Number of growing cycles and concluding examination of fruit crops" from an expert from the European Union. A copy of the presentation is provided in document TWF/55/4.

34. The TWF noted that the number of growing cycles in Test Guidelines for fruit crops was usually two. The TWF noted that the standard wording for such cases stated that "the minimum duration of tests should normally be two independent growing cycles."

35. The TWF noted that the choice of number of growing cycles for fruit crops was a subject of discussion by the interested experts and the TWF. The TWF noted the experiences reported by Canada and France on assessments conducted after one satisfactory crop of fruits.

36. The TWF considered the standard wording "the testing of a variety may be concluded when the competent authority can determine with certainty the outcome of the test" and whether it could be contradictory

to the standard wording that “the minimum duration of tests should normally be two independent growing cycles.”

37. The TWF agreed to invite the experts from France with the support of Canada, European Union, France, Germany, New Zealand, Republic of Korea and CIOFORA to develop proposals on the number of growing cycles for fruit crops, such as reducing the duration of tests to one growing cycle for fruit crops and the meaning of “a satisfactory crop of fruit”.

Procedures for assessment of characteristics with single record (MG) and a number of individual records (MS) for a group of plants or parts of plants

38. The TWF received a presentation from the Office of the Union on guidance on types of records of characteristics in document TGP/9 “Examining Distinctness”. The TWF noted that the presentation would be made available as document TWF/55/8.

39. The TWF considered examples of assessment of different quantitative characteristics in fruit crops, as presented by the experts from France, Germany and South Africa. The TWF noted the situations when records were made for individual parts of plants and then used to calculate a variety mean, as opposed to situations when one plant part was recorded as representing the variety. The TWF agreed to further consider examples during discussions on the individual draft Test Guidelines.

Implementation of Purdy’s notation for pedigrees in UPOV PRISMA

40. The TWF received a presentation from a representative of the International Seed Federation (ISF) on “Implementation of Purdy’s notation for pedigrees in UPOV PRISMA”, a copy of which is provided in document TWP/8/3.

41. The TWF noted that discussions on the use of Purdy’s notation for UPOV PRISMA included the development of a wizard to guide applicants providing information and provided an opportunity to harmonize how information was provided in technical questionnaires for different crops.

Information on mutant varieties of apple useful for DUS examination

42. The TWF considered document TWP/8/2, paragraphs 18 to 21.

43. The TWF noted that the TC had agreed that authorities should continue to cooperate in variety examination of apple mutants, including exchange of information on bilateral basis. The TWF noted that the TC had agreed that the TWF should continue discussions to support DUS examination of mutant varieties of apple.

Image analysis and new technologies in DUS examination

44. The TWF received a presentation on “Image Analysis in Plant Variety Test for Fruit Crops (apricot, peach, apple)” from an expert from the Republic of Korea. A copy of the presentation is provided in document TWF/55/5.

45. The TWF noted the automated procedures for the assessment of characteristics from the Test Guidelines for Apricot (11 characteristics); Peach (7 characteristics); and Apple (11 characteristics). The TWF noted that the amount of time required for the assessment of each variety was expected to be reduced from six to three hours. The TWF agreed to invite the expert from the Republic of Korea to report developments at its fifty-sixth session.

Experiences with new types and species

46. The TWF noted the report from the European Union on the filing of applications for rootstock varieties of different fruit crops.

47. The TWF considered a proposal to append information to the UPOV codes of fruit crops used as rootstock. The TWF agreed to further explore this approach and invited the expert from the European Union to develop proposals for the individual UPOV codes concerned.

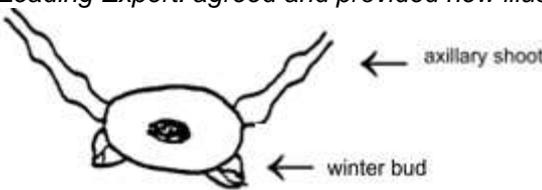
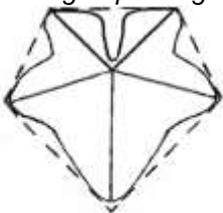
48. The TWF considered whether the information on the variety use as rootstock could cause confusion regarding grouping and organizing of trials. The TWF noted that certain varieties could be used for different purposes (dual-purpose varieties) and agreed that further discussion would be required on this matter.

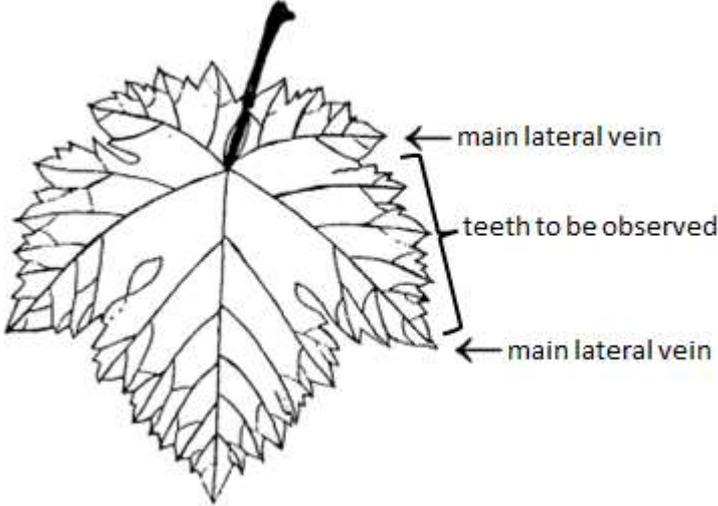
Matters to be resolved concerning Test Guidelines put forward for adoption by the Technical Committee

**Grapevine (Vitis L.) (Revision)*

49. The TWF considered documents TG/50/10(proj.7) and TWF/55/6, presented by Mr. Roberto Carraro (Italy), on behalf of the Leading Expert Mr. Luca Aggio, and agreed the following:

2.2	to read "... (a) plants on their own roots (b) rooted grafts with scions grafted on a rootstock" <i>Leading Expert: agreed</i>
6.4	to read "For the example varieties –other than rootstocks which do not produce berries – ..." <i>Leading Expert: agreed</i>
6.5	to replace "Bioversity International" with "Alliance Bioversity & CIAT" <i>Leading Expert: agreed</i>
Char. 17 - 29	to delete "mature" (covered by (b)) <i>Leading Expert: It is right, but reading only the characteristic definitions it seems they could include the young leaves</i> <i>TWF: agreed with deletion of "mature"</i>
Char. 3, 4, 10 to 15	to remove underlining <i>Leading Expert: According to the TGP 7, chapter 7, GN 18: 2. Clarifying similar characteristics. "In the case of two or more characteristics where there is only one difference between the characteristics (e.g. lower or upper side of blade) to be observed, the part that differs should be underlined e.g. 'lower side', or 'upper side'"</i> <i>Thus, 3 and 4, 14 and 15 must be kept underlined.</i> <i>Instead, 10-11 and 12-13 have two different words per definition; anyway, it is better to have them underlined to focus immediately the slightly differences.</i> <i>TWF: to delete underlining of "internodes" and "nodes" in chars. 10 to 13</i>
Char. 4	to add * to O-005 <i>Leading Expert: agreed</i>
Char. 8	to add * to O-056 <i>Leading Expert: agreed</i>
Char. 9	to add * to O-006 <i>Leading Expert: agreed</i>
Char. 14	to add * to O-012 <i>Leading Expert: agreed</i>
Char. 15	state 2 to read "very sparse to sparse" <i>Leading Expert: agreed</i>
Char. 22	to check whether to read "Only varieties with Leaf: number of lobes: more than one: Leaf: arrangement of lobes of upper lateral sinuses" <i>Leading Expert: For more readability, the current one is better.</i> <i>TWF: to read "Only varieties with: Leaf: number of lobes: more than "one": Leaf: arrangement of lobes of upper lateral sinuses"</i>
Char. 29	- to add * to O-087 - to correct spelling of "medium" <i>Leading Expert: agreed</i>
Char. 30	to check whether to delete growth stage (as Ad. 30 is more precise) <i>Leading Expert: agreed</i>
Char. 39	- to read: "Berry: color of skin without bloom" - growth stage to read "89 / O- -- / B- --" <i>Leading Expert: agreed</i>

Char. 31, 32, 34, 36, 41	to replace MG by MS <i>Leading Expert: agreed</i>
Char. 40	to add * to O-231 <i>Leading Expert: agreed</i>
Char. 42	to add * to O-236 <i>Leading Expert: agreed</i>
Char. 44	growth stage to be indicated as "91-99 / O--- / B-6.1.42*" <i>Leading Expert: agreed</i>
Ad. 1	to read "Time of bud burst is reached when 50% of the plants are at bud burst stage ..." <i>Leading Expert: agreed</i>
Ad. 2	- first sentence to read "The openness of the tip should be determined by the attitude of the young leaves." - last sentence to read "Observations should be made on the part of the young shoot in squares." <i>Leading Expert: agreed</i>
Ad. 3	Suggest: Observations on young shoots with closed, slightly open or half open tips (characteristic 2) should be made on unfolded leaves. Observations on young shoots with wide open or fully open tips (characteristic 2) should be made on the first 2 distal unfolded leaves. <i>Leading Expert: To keep the definition as it is currently:</i> <i>"Wide open or fully open tips (characteristic 2) to be observed with inclusion of first 2 distal unfolded leaves. Leaves of closed, slightly open or half open tips to be unfolded to enable observations on corresponding part of tip."</i> <i>The suggested sentence has different meaning!</i> <i>Explanation: Observation should be made not only on the young leaves (as suggested by the modifications), but on the tip of the shoot (which include the first young leaves as well).</i> <i>TWF: to read "Observations should be made by unfolding leaves with closed, slightly open or half open tips."</i>
Ad. 6	- to read "Observations on closed, slightly open or half open tips (characteristic 2) should be made on the first 2 distal unfolded leaves. Observations on wide open or fully open tips should be made on the fourth distal unfolded leaf." - to delete last sentence <i>Leading Expert: agreed</i>
Ad. 7	to read "Observations on closed, slightly open or half open tips (characteristic 2) should be made on the second distal unfolded leaf. Observation on wide open or fully open tips should be made on the fourth distal unfolded leaf" <i>Leading Expert: agreed</i>
Ad. 9	to delete last two sentences. <i>Leading Expert: agreed and these changes are appreciated: "Observation should be made on plants before tying"</i>
Ad. 10	- the arrows should be pointing closer to the appropriate points on the diagram - to delete last sentence <i>Leading Expert: agreed and provided new illustration</i> 
Ad. 16	to replace current illustration for state 2 with the correct one as in proj.6 <i>Leading Expert: agreed</i>
Ad. 18	to provide improved illustration for state 3 <i>Leading Expert: agreed and provided new illustration</i> 

Ad. 20	to read “Leaves with different numbers of lobes can appear within the same plant. ... The predominant number of lobes should be observed.” <i>Leading Expert: agreed</i>
Ad. 23	to read “Observations should be made on flattened leaves. Different arrangements of the lobes of the petiole sinus can appear within the same plant.” <i>Leading Expert: agreed</i>
Ad. 24, 25, 26	to be revised and checked for coherence (what is observed?; to add illustrations for Ad. 24 and 25 or indicate in illustrations of Ad. 26?) <i>Leading Expert: to read “Observations should be made on the teeth placed between the main lateral veins.” and new illustration provided</i> 
Ad. 27	to check whether to delete last sentence or to improve explanation <i>Leading Expert: agreed</i>
Ad. 30	to check whether to read “Time of beginning of berry ripening is reached when...” <i>Leading Expert: agreed</i>
Ad. 31, 32	to add “See Ad. 34” <i>Leading Expert: agreed</i>
Ad. 31	to read “Observations should be made from the uppermost to the lowest berry of the primary bunch, excluding the peduncle.” <i>Leading Expert: agreed</i>
Ad. 32	to read “Observation should be made at the broadest part.” <i>Leading Expert: to read “Observation should be made at the broadest part of the primary bunch”.</i>
Ad. 33	state 9 to read “very many berries pressed out of shape” <i>Leading Expert: agreed</i>
Ad. 34	first sentence to read “Observations should be made from the insertion point of the peduncle on shoot to the 1 st ramification on the primary bunch.” <i>Leading Expert: agreed</i>
8.3	13: 3 rd ... (superscript) 68: flowerhoods in plural 92: discoloration (correct spelling) <i>Leading Expert: agreed</i>
8.3	to remove hyphen from Bundessortenamt in the footnote <i>Leading Expert: agreed</i>

8.4	<p>to make the following corrections:</p> <ul style="list-style-type: none"> - Ahmeur bou Ahmeur: skin color should be Rg <i>Leading Expert: agreed</i> - to correct spelling of “Gewürztraminer” (ü instead of u) <i>Leading Expert: agreed</i> - Itumnine: correct to read “Itumeighteen” (to check whether to keep Itumnine and add Itumeighteen) <i>Leading Expert: Itumnine and Itumeighteen: both should be listed in the table 8.4. The first is at characteristic 35, the second one is at the characteristic 37.</i> - Korinthiaki: to have the following corrected synonyms: Black Corinth, Corinto nero, Corinthe noir, Corinto negro <i>Leading Expert: agreed</i> 															
9.	<p>literature format to be reviewed and completed according to TGP/7 <i>Leading Expert: provided</i></p>															
TQ 7.	<p>to check whether to include request for main use of the variety (as in current adopted version of the TG):</p> <p>7.3.2 Main use of variety</p> <table border="0" style="margin-left: 20px;"> <tr><td>(a)</td><td>Wine grape</td><td>[]</td></tr> <tr><td>(b)</td><td>Table grape</td><td>[]</td></tr> <tr><td>(c)</td><td>Rootstock</td><td>[]</td></tr> <tr><td>(d)</td><td>Ornamental</td><td>[]</td></tr> <tr><td>(e)</td><td>Other (specify)</td><td>[]</td></tr> </table> <p><i>Leading Expert: This is an interesting information for the purpose of the breeder and the customer too, but it is not useful for conducting DUS test and obtaining PBR: the procedures to evaluate whether a variety comply with the DUS and novelty requirements are not affected by this information.</i></p> <p><i>Anyway, to add the statement that was lost during the revision process:</i> <i>“A representative color photographs of the variety should accompany the Technical Questionnaire.”</i></p> <p><i>TWF: to add information on main use, request for color photograph already included in the draft</i></p>	(a)	Wine grape	[]	(b)	Table grape	[]	(c)	Rootstock	[]	(d)	Ornamental	[]	(e)	Other (specify)	[]
(a)	Wine grape	[]														
(b)	Table grape	[]														
(c)	Rootstock	[]														
(d)	Ornamental	[]														
(e)	Other (specify)	[]														

Discussion on draft Test Guidelines

Full draft Test Guidelines

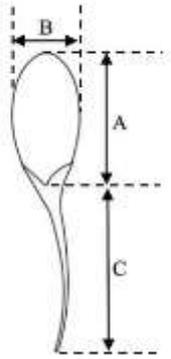
Argania (*Argania spinosa* (L.) Skeels)

50. The TWF noted, that on request of the Leading Expert, Ms. Ibtihaj Belmehdi (Morocco), and in agreement with the chairperson of the TWF, the discussion of draft Test Guidelines for Argania would be postponed to the fifty-sixth session of the TWF.

*Goji (*Lycium barbarum* L., *L. chinense* Mill., *L. cylindricum* Kuang & A. M. Lu, *L. dasystemum* Pojark. *L. ruthenicum* Murray, *L. truncatum* Y. C. Wang, *L. yunnanense* Kuang & A. M. Lu)

51. The subgroup discussed document TG/LYCIUM_BAR(proj.4), presented by Ms. Chuanhong Zhang (China), and agreed the following:

1.2	to read “Guidance on the use of Test Guidelines for species in the same genus / interspecific hybrids that are not explicitly covered by Test Guidelines is provided in document TGP/13 “Guidance for New Types and Species”.”									
2.3	to delete “vegetatively propagated varieties.”									
6.5	<p>- to add to table linking example varieties to species:</p> <table border="1" style="margin-left: 20px;"> <tr><td>(1)</td><td><i>Lycium barbarum</i> L.</td><td>NQ1</td></tr> <tr><td>(1)</td><td><i>Lycium barbarum</i> L.</td><td>FPW07</td></tr> <tr><td>(1)</td><td><i>Lycium barbarum</i> L.</td><td>Instant Success</td></tr> </table> <p>- to have botanical names in table linking example varieties to species in italics - to move table linking example varieties to species to chapter 6.4 and add “(1), (2), (3), (4) – see Chapter 6.4” to 6.5</p>	(1)	<i>Lycium barbarum</i> L.	NQ1	(1)	<i>Lycium barbarum</i> L.	FPW07	(1)	<i>Lycium barbarum</i> L.	Instant Success
(1)	<i>Lycium barbarum</i> L.	NQ1								
(1)	<i>Lycium barbarum</i> L.	FPW07								
(1)	<i>Lycium barbarum</i> L.	Instant Success								
Char. 2	to add “(1)” after example varieties (belong to <i>Lycium barbarum</i> L.)									

Char. 6	to add “Ningqi 3 Hao (1)” as example variety for state 9
Char. 6, 7	to replace “spines” with “thorns”
Char. 7	to read “ <u>Only varieties with: One-year-old shoot: presence of spines: present: One-year-old shoot: length of spines</u> ”
Char. 8	to add the following example varieties: - “Mengqi 1 Hao (1)” for note 1 - “Ningqi 5 Hao (1)” for note 3 - “Ningqi 1 Hao (1)” for note 5
Char. 19	- to read “Peduncle: attachment to calyx” - state 1 to read “mostly symmetrical” - state 2 to read “equally symmetrical and asymmetrical” - state 3 to read “mostly asymmetrical”
Ad. 9	to read “Observations should be made at the middle third of two-year-old shoots in the dormant period.”
Ad. 19	to delete illustration for state 2
Ad. 20	to lengthen arrow for C to the beginning of arrow for A (no blank space between arrows for A and C): 
Ad. 26	to read “Time of beginning of fruit maturity is reached when 10% of the fruiting shoots of the whole plant have mature fruits in the first fruit ripening period.”
9.	reference to read as follows: “石志刚·杜慧莹·门慧芹., 2012枸杞种质资源描述规范和数据标准. 中国林业出版社. 北京, 中国, 66pp. (Zhi-gang S., Hui-ying D., Huiqin M., 2012: Description specification and data standard of germplasm resources for <i>Lycium</i> L. China forestry publishing house. Beijing, CN, 66 pp.)”
TQ 4.2.1 (c)	to read “Budding or grafting (please specify rootstock)”
TQ 6.	to replace current example with “Leaf: length”, “short”, “medium”

Guava (*Psidium guajava* L.; *Psidium cattleyanum* Sabine var. *littorale* (Raddi) Fosberg) (Revision)

52. The subgroup discussed document TG/110/4(proj.3), presented by Ms. Ling Gao (China), and agreed the following:

Cover page	- to add <i>Psidium guajava</i> L. x <i>Psidium littorale</i> Raddi as synonym (see GRIN) for PSIDI_CAT_CAT - to add Spanish common name “Guyaba”
1.	to add UPOV code for hybrid varieties
2.2	to read “The material is to be supplied in the form of rooted cuttings or grafted trees.”
2.3	- to reduce number of plants to 5 plants - to add “The rootstock to be used is specified by the competed authority.”
4.3.3	to be deleted
5.3	to add the following as grouping characteristics Tree: growth habit (characteristic 1) Leaf blade: variegation (characteristic 14) Fruit: diameter (characteristic 28) Fruit: color of skin (characteristic 31) Fruit: color of flesh (characteristic 41) Time of harvest maturity (characteristic 53)

Table of chars.	<ul style="list-style-type: none"> - to add example varieties - to present all states of expression for QN characteristics - to check whether a new characteristic on incisions of margins leaf blade should be added (see illustration 1 of Ad. 21) - to check whether TG Acca (TG/306/1 Corr.) could be used as example for similar characteristics in this draft
Char. 1	<ul style="list-style-type: none"> - to be indicated as PQ - to add illustration
Char. 3	to reduce scale to 5 notes
Char. 4	to reduce scale to 5 notes
Char. 5	<ul style="list-style-type: none"> - to be indicated as VG - to reduce scale to 3 notes
Char. 6, 7, 8	to reduce scale to 5 notes
Char., Ad. 9	<ul style="list-style-type: none"> - to check names of states (shapes) (see TGP/14; to check whether “oblong” to read “narrow oblong” or “medium oblong”) - to present illustrations in a grid
Char. 10	to have states (1) absent or weak, (2) medium, (3) strong
Char. 11	to check whether really a QL characteristic or a QN characteristic
Char. 12	to be deleted
Char. 13	state 1 to read “absent or weak”
Char. 17	<ul style="list-style-type: none"> - to reduce scale to 3 notes - to read “Leaf blade: density of veins” and have states “sparse”, “medium”, “dense” - to delete MS
Char. 18	to reduce scale to 3 notes
Char. 19	to reduce scale to 3 notes “absent or weak”, “medium”, “strong”
Char. 21	<ul style="list-style-type: none"> - to check whether to add “excluding tip” (if so, all states to be checked, could become narrow to broad acute) - state 1: to check whether to read “acuminate” - state 3: to check whether to read “right-angled” - state 6: to check whether to read “retuse”
Char. 22	<ul style="list-style-type: none"> - to check whether to delete “predominant” - state 2 to read “both two and three” - to add example varieties and illustrations
Char. 28	to read “Fruit: diameter”
Char. 29	<ul style="list-style-type: none"> - to have states from “low” to “high” - to read “Fruit: ratio length/diameter”
Char. 30	to check wording of states 1 and 2 to better describe the difference between the two rounded
Char. 32	<ul style="list-style-type: none"> - to check whether to have states “smooth”, “medium”, “rough” - to check whether “bumpy” should be a separate characteristic
Char. 33	state 2 to read “different color”
Char. 34	to be deleted (combined with 35)
Char. 35	<ul style="list-style-type: none"> - to reduce scale to 3 notes - state 1 to read “absent or weak”
Char. 37	to reduce scale to 3 notes
Char. 38	<ul style="list-style-type: none"> - to read “Fruit: diameter of calyx cavity in relation to diameter of fruit” - to reduce scale to 3 notes
Char. 39	<ul style="list-style-type: none"> - to be indicated as QN - to have states (1) inconspicuous, (2) moderately conspicuous, (3) strongly conspicuous
Char. 40	to reduce scale to 5 notes
Char. 42	to check whether to replace with two characteristic color of inner and color of outer pericarp
Char. 43, 44	to check whether to be deleted or add explanation
Char. 45	to reduce scale to 5 notes
Char. 46, 47	<ul style="list-style-type: none"> - to be combined (delete 46, state 1 of 47 to read “absent or weak”) - to add explanation - to check whether to reduce scale to 3 or 5 notes
Char. 50	<ul style="list-style-type: none"> - to add explanation - to check whether it is aroma?
Char. 53	to check whether to add characteristic for time of consumption maturity
8.2	to delete illustrations of color characteristics (see TGP/7, GN 36)

Ad. 2	to be deleted (see TGP/7, GN 36)
Ad. 10	to delete photographs and keep illustrations only
Ad. 19	to have illustrations for new states 1, 2, 3
Ad. 21	to check whether illustrations need to be updated according to changes to char. 21
Ad. 30	to have all fruits presented in the same angle or replace photographs with drawings
Ad. 42	to have illustrations cut in same section

Hazelnut (*Corylus avellana* L.; *Corylus colurna* L.) (Revision)

53. The subgroup discussed document TG/71/4(proj.5), presented by Mr. Flavio Roberto de Salvador (Italy), and agreed the following:

Cover page	- to check whether to add more synonyms (see GRIN) - to check whether to add common name "Filbert"
2.2	to read "The material is to be supplied in the form of plants."
5.3 (d)	to delete characteristic 20 from grouping characteristics
6.5	to check whether reference to growth stage key to be deleted or add growth stages
Table of chars.	- to allocate explanations from 8.1 to characteristics ((a), ...) - to add characteristics "Male inflorescence: number of catkins per cluster" after characteristic 10 and "Kernel: color of skin" after characteristic 37 (see document TWF/54/13 "Report", paragraph 43) - to correct spelling of example variety "Du Chilly" (1 space) throughout the draft - to correct spelling of example variety "Jean's" (' instead of `) throughout the draft
Char. 3	to be deleted
Char. 4	to add explanation to read "Observations on the emission of suckers should be made in early summer."
Char. 5	to delete states 1 and 5 and change notes of remaining states to 1, 2, 3
Char. 11	to replace "OSU 899.010 Oregon selection" with "Daviana"
Char. 14	to move example variety "Fertile de Coutard" from state 2 to state 4
Char. 16	state "present" to have note 9
Char. 17	to reduce scale of notes to 1, 2, 3
Char. 18	to reduce scale of notes to 1, 2, 3
Char. 19	- to reduce scale to 3 notes by deleting states 2 and 4 and have state (1) weak, (2) medium, (3) strong - move example variety "Gunslebert" from current state 5 to state 3
Char. 20	to be indicated as QN
Char. 21, 22	to be deleted
Char. 24	to move example variety "Negret" from state 4 to state 3
Char. 26	- state 1 to read "circular" - state 3 to read "ovate" - state 4 to read "oblate" - state 5 to read "obovate" - state 6 to read "oblong" - to re-order states according to changes made to the grid (see comment on Ad. 26)
Char. 33	- to read "Nut: density of hairiness at apex" - state 1 to read "absent or sparse" - state 3 to read "dense"
Char. 34	to read "Nut: size of basal scar in relation to size of nut"
Char. 37	- state 1 to read "circular" - state 2 to read "angular" - state 3 to read "ovate" - state 4 to read "obovate" - state 5 to read "oblong" - to re-order states according to changes made to the grid (see comment on Ad. 37)
Char. 42	state 1 to read "absent or weak"
Char. 43	state 1 to read "absent or small"
Char. 49	to add explanation "Time of harvest maturity is reached when 50% of the fruits have fallen off."
8.1 (c), (f)	to be deleted
8.1 (g)	to delete "... to 70%"
8.2	to update explanations with changes made to characteristics

Ad. 6	to have states (1) sparse, (2) medium, (3) dense
Ad. 23	to improve illustrations or replace with drawings
Ad. 26	to update shapes according to comment in characteristic 26 and re-number shapes according to presentation in grid (see TGP/14; to have notes from left to right and bottom to top)
Ad. 37	- to update shapes according to comment in characteristic 37 and re-number shapes according to presentation in grid (see TGP/14; to have notes from left to right and bottom to top) - state 2 should be moved to left column (low ratio) - state 5 to be moved left
Ad. 42	to check whether to improve illustrations or replace with explanation
8.3	- check spelling of varieties (e.g. "Imperialr de Trapezunt", Inperialre de Trèbizonde") - to add space to "Wissmanns Zellernuss"
TQ 4.2	to be completed
TQ 6.	to replace current example with "Nut: size", "small", "medium"

Japanese Pear (*Pyrus pyrifolia* (Burm. f.) Nakai var. *culta* (Mak.) Nakai) (Revision)

54. The subgroup discussed document TG/149/3(proj.1), presented by Mr. Koji Nakanishi (Japan), and agreed the following:

Cover page, 1.	- to check the coverage of the TG and whether and how to address hybrids - to check whether all species covered can be included or whether GN 3 applies (see TGP/7)
Cover page	to check whether to add "Asian Pear" and "Nashi" as common names
5.3	to add characteristic 59 as grouping characteristic
Char. 6	to reduce scale to 3 notes as follows: - state 1 "small" with example varieties "Chojuro, Shinseiki" - state 2 "medium" with example varieties "Gold Nijisseiki, Hosui, Kosui" - state 3 "large" with example varieties "Niitaka, Shinsui"
Char. 14	- to delete "intensity of" from title - state 1 to read "absent or very weak"
Char. 20	- to check whether to have states from "low" to "high" or "short" to "long" - to check whether to reduce scale - to check whether to read "Petiole: ratio petiole length / leaf blade length"
Char. 31, 32, 33	to add VG
Char. 35	to check whether PQ or QN and check wording of title and states (e.g. "Fruit: russeting" with states "absent or very small", "medium", "very large")
Char. 36	to check whether to add state "yellow"
Char. 37	- to check whether to read "Only varieties with (title of char. 35) ..." and delete state 1 - to check whether it is a good grouping char. or should be removed from 5.3
Char. 40	- to check title according to changes to previous russet characteristic 35 - to read "... Fruit: texture of russet"
Char. 41, 42, 43, 44	to add MG and VG
Char. 45	to check whether to read "Fruit: number of fruits with persistent calyx" and check wording of states (e.g. "scarce" and "abundant")
Char. 52	to check whether to add "reddish" and "pinkish" (depending on the coverage of the TG)
Char. 61, 62	to confirm whether really QL (once isolates are identified)
8.1	to add explanation (d) to read "Observations should be made on fruits at harvest maturity." and to add to all fruit and seed chars. (30 to 58)
Ad. 34	- to present shapes in a grid and rotate illustrations by 180 degrees to have stalk at bottom - to check whether state 2 to read "narrow elliptic" or "medium elliptic"
Ad. 35	- to be checked (see comment on char. 35) - to add illustration
Ad. 45	to correct spelling of "persistent"
Ad. 48	- to add "Observations should be made on the base of the stalk." - to add arrow to illustrations
TQ 1.	to add 1.3 for indication of interspecific hybrids

TQ 4.2.1 (b)	to check whether to replace with <i>in-vitro</i>
TQ 7.	- section "Pollinator" to read: "Pollinizer: Good pollinizers are the following varieties:" - section "Resistance to pests and diseases": to delete i) and iii) (as presented in table of chars.)

Japanese Plum (*Prunus salicina* Lindl.; hybrids between *Prunus salicina* and *Prunus armeniaca*) (Revision)

55. The subgroup discussed document TG/84/5(proj.1), presented by Ms. Carole Dirwimmer (France), and agreed the following:

Cover page, 1., TQ 1.	to expand coverage to more crosses (with cherry and peach)
Cover page 1.1	to add English common names "Asian plum" and "Chinese plum"
1.1	to correct spelling of "between"
2.2, 2.3	to check whether to replace "budsticks" with "budwood"
Table of chars.	- to check usefulness of characteristics to distinct varieties and whether to delete certain characteristics - to check example varieties and replace old with new ones and avoid trademarks as e.g. "Black Diamond"
Char. 1	- to be indicated as QN - to check whether to be deleted
Char. 6, 7, 8, 14, 15, 16	to be deleted
Char. 19	- state 1 to read "predominantly at base of leaf blade" - state 2 to read "equally at base of leaf blade and on petiole"
Char. 23, 24	to be deleted
Char. 29	- to delete VG - to read "Fruit: weight" - to add explanation
Char. 34	to check whether to add example varieties for states 6 and 7 or delete these states
Char. 35	to check whether to be deleted (does state 1 exist and is char. useful?)
Char. 41	to read "Only varieties with Fruit: pubescence: absent: Fruit: bloom of skin"
Char. 42	to check whether to be deleted
Char. 47	to delete MS
Char. 54	to check example varieties
Char. 55	to be deleted
Char. 57	state 1: to spell "medium" with small m
Char. 58, 59	to be deleted
8.1 (b)	to read "Observations should be made ..."
8.1 (c)	to add hyphen to "well-developed"
8.1 (d)	to read "Observations should be made ..." (correct typo)
Ad. 34	to adjust grid and order of states according to TGP/14 (left to right, bottom to top)
Ad. 50	to read "Observations should be made by squeezing the fruits or measuring using a penetrometer."
Ad. 52	to replace "mL" with "ml"
Ad. 54	to read "Observations should be made on the part of the stone that is linked to the flesh on an open fruit."
Ad. 57	- to add stalk attachment and mucron to illustrations - to adjust grid and order of states according to TGP/14 (left to right, bottom to top)
9.	to check whether to add Hedrick, UP. The Plums of New York

Granadilla, Passion fruit (*Passiflora edulis* Sims) (Revision)

56. The subgroup discussed document TG/256/2(proj.2), presented by Mr. Barkat Mustafa (Australia), and agreed the following:

Char. 3	to be deleted
---------	---------------

Char. 5	- to have states (1) absent or weak, (2) medium, (3) strong - to confirm whether example variety "Panama Gold" should be added for state 2 or 3
Char. 6	to delete "intensity of"
Char. 10	to read " <u>Only varieties with: Plant: relative number of leaves with three lobes: present: Leaf blade: width of the middle lobe</u> "
Char. 11	to read "Leaf blade: intensity of green color of upper side"
Char. 16	to delete "intensity of"
Char. 17	state 2 to read "distant from the base of the leaf blade"
Char. 21	- to add (*) - to add example variety for state "absent"
Char. 28	to read "Flower: intensity of color on inner filaments in throat"
Char. 30	to read "Flower: width of purple rings on corona filaments"
Char. 35	state 3 to read "broad"
Char. 38	to read "Flower: number of anthocyanin spots on androgynophore"
Char. 39	to add (*)
Char. 44	state 2 to read "medium yellow"
Char. 46	- to read "Fruit: weight" - to add explanation "Observations should be made on freshly harvested fruit."
Char. 50	to add (*)
8.1 (d) to (i)	to check whether to be moved to 8.2
8.2	to be updated according to changes in table of characteristics
Ad. 42	to adjust grid and order of states according to TGP/14 (left to right, bottom to top)
TQ 5.1	to delete characteristic 7 from TQ 5

Recommendations on draft Test Guidelines

(a) *Test Guidelines to be put forward for adoption by the Technical Committee*

57. The TWF agreed that the following draft Test Guidelines should be submitted to the TC for adoption at its sixtieth session, to be held in Geneva on October 21 and 22, 2024, on the basis of the following documents and the comments in this report:

Full draft Test Guidelines

<u>Subject</u>	<u>Basic Document(s) (2024)</u>
Grapevine (<i>Vitis</i> L.) (Revision)	TG/50/10(proj.7), TWF/55/6

(b) *Test Guidelines to be discussed at the fifty-sixth session*

58. The TWF agreed to discuss the following draft Test Guidelines at its fifty-sixth session:

Full draft Test Guidelines

<u>Subject</u>	<u>Basic Document(s) (2024)</u>
*Argania (<i>Argania spinosa</i> (L.) Skeels)	TG/ARGAN(proj.6)
European Pear (<i>Pyrus communis</i> L.) (Revision)	TG/15/3
*Goji (<i>Lycium barbarum</i> L., <i>L. chinense</i> Mill., <i>L. cylindricum</i> Kuang & A. M. Lu, <i>L. dasystemum</i> Pojark., <i>L. ruthenicum</i> Murray, <i>L. truncatum</i> Y. C. Wang, <i>L. yunnanense</i> Kuang & A. M. Lu)	TG/LYCIUM_BAR(proj.4)
*Guava (<i>Psidium guajava</i> L.; <i>Psidium cattleyanum</i> Sabine var. <i>littorale</i> (Raddi) Fosberg) (Revision)	TG/110/4(proj.3)
*Hazelnut (<i>Corylus avellana</i> L.; <i>Corylus colurna</i> L.) (Revision)	TG/71/4(proj.5)
Japanese Pear (<i>Pyrus pyrifolia</i> (Burm. f.) Nakai var. <i>culta</i> (Mak.) Nakai) (Revision)	TG/149/3(proj.1)

Japanese Plum (<i>Prunus salicina</i> Lindl.; hybrids between <i>Prunus salicina</i> and <i>Prunus armeniaca</i>) (Revision)	TG/84/5(proj.1)
*Granadilla, Passion fruit (<i>Passiflora edulis</i> Sims) (Revision)	TG/256/2(proj.2)

Partial revisions

<u>Subject</u>	<u>Basic Document(s) (2024)</u>
Blueberry (Partial revision: Char. 24; addition of three new char.)	TG/137/5

59. The leading experts, interested experts and timetables for the development of the Test Guidelines are set out in Annex II to this report.

(c) *Possible Test Guidelines to be discussed in the future*

60. The TWF agreed that it should consider the development of Test Guidelines for the following at a future session:

<u>Subject</u>	<u>Basic Document(s)</u>
Carambola (<i>Averrhoa carambola</i> L.)	NEW
Cape Gooseberry (<i>Physalis peruviana</i> L.)	NEW
Date Palm (<i>Phoenix dactylifera</i>)	TG/PHOEN_DAC(proj.1) (IL)
Soursop (<i>Annona muricata</i> L.)	NEW
Lemon (Lemons and Limes (<i>Citrus</i> L. - Group 3)) (Revision)	TG/203/2(proj.2)
Mandarin (<i>Citrus</i> L. – Group 1) (Revision)	TG/201/2(proj.2)
Trifoliate Orange ((Poncirus) (<i>Citrus</i> L. - Group 5)) (Revision)	TG/83/5(proj.2)
Oranges (<i>Citrus</i> L. - Group 2) (Partial revision: move relevant botanical names from the “principle botanical names” box to the “alternative botanical names” box, TQ 4.2) (Partial revision)	TG/202/1 Rev. 2, TC/57/11, Annex III
Pummelo (Grapefruit and) (<i>Citrus</i> L. - Group 4) (Partial revision: move relevant botanical names from the “principle botanical names” box to the “alternative botanical names” box, TQ 4.2) (Partial revision)	TG/204/1 Rev. 2, TC/57/11, Annex III

Matters for information

Reports on developments in plant variety protection from members and observers

61. The TWF noted the information on developments in plant variety protection from members and observers provided in document TWF/55/2 Prov. The TWF noted that reports submitted to the Office of the Union after May 17, 2024, and until June 6, 2024, would be included in the final version of document TWF/55/2.

Reports on developments in UPOV

62. The TWF received a presentation from the Office of the Union on developments in UPOV, a copy of which is provided in document TWP/8/2.

Technical Committee subgroup on Test Guidelines

63. The TWF received an oral report from the leading expert of the subgroup, Ms. Margaret Wallace (United Kingdom). The following summary was provided by Ms. Wallace:

“Summary of outcomes so far:

- “Test Guidelines are essential for international harmonization of DUS testing.
- “Some participants wanted to develop an electronic version of the TG while others wanted to retain the printable function. Many of the users who print a copy for use in the field, often restrict this to the table of characteristics and accompanying explanation notes.
- “The majority of testing authorities adopt national test guidelines from the UPOV TG, rather than use the UPOV TG during the test.
- “The use of example varieties and usefulness of diagrams and photographs was discussed. This may be addressed by the revision of GN 28 being considered by the TWPs.
- “The adoption of national test guidelines based on the TG-template was generally supported but concerns about whether this is the most effective use of funds were raised.

“TWF participants are invited to contact Margaret Wallace to contribute to the work of the sub-group. The work of the sub-group was presented to each of the TWPs in their 2024 sessions. A document will be produced by the sub-group for consideration at the sixtieth session of the Technical Committee.”

Date and place of the next session

64. At the invitation of Türkiye, the TWF agreed to hold its fifty-sixth session in Malatya, from June 23 to 26, 2025.

Future program

65. The TWF agreed that documents for its fifty-sixth session should be submitted to the Office of the Union by May 9, 2025. The TWF noted that items would be deleted from the agenda if the planned documents did not reach the Office of the Union by the agreed deadline.

66. The TWF agreed to discuss the following items at its next session:

1. Opening of the Session

Matters for discussion

2. Adoption of the agenda
3. Date and place of the next session
4. Procedures for DUS examination (presentations invited)
5. Number of plants / parts of plants to be examined, including methods of observation (MS/MG) (France to provide a document and presentations invited)
6. Number of growing cycles and concluding examination of fruit crops (document to be prepared by France and documents invited)
7. Harmonization of content in Technical Questionnaires, Section 7 (document to be prepared by the European Union and presentations invited)
8. Variety collections (presentations invited)
9. Information databases (presentations invited)
10. Information on mutant varieties of apple useful for DUS examination (presentations invited)
11. Image analysis and new technologies in DUS examination (presentations invited)
12. Molecular techniques in DUS examination (presentations invited)
13. Experiences with new types and species (oral reports invited)
14. Discussion on draft Test Guidelines
15. Recommendations on draft Test Guidelines

16. Future program
17. Adoption of the Report on the session (if time permits)

Matters for information

18. Reports from members and observers (written reports to be prepared by members and observers)
19. Report on developments in UPOV (general developments, including variety denominations, information databases, exchange and use of software and equipment)
20. Closing of the session

67. The TWF adopted this report at the close of its session.

[Annex I follows]

LIST OF PARTICIPANTS

I. MEMBERS

ARGENTINA

María Lilia LOSADA (Sra.), Examiner, Dirección de Registro de Variedades, Instituto Nacional de Semillas (INASE), Secretaría de Bioeconomía, Ministerio de Economía, Buenos Aires
(e-mail: mlosada@inase.gob.ar)

AUSTRALIA

Barkat MUSTAFA (Mr.), PBR Examiner, IP Australia, Phillip
(e-mail: Barkat.Mustafa@ipaaustralia.gov.au)

BULGARIA

Diliyan Rousev DIMITROV, Head of Variety Testing Department, Executive Agency for Variety Testing, Field Inspection and Seed Control (IASAS), Sofia
(e-mail: ddimitrov@iasas.government.bg)

CANADA

Jennifer ROACH (Ms.), Examiner, Plant Breeders' Rights Office, Canadian Food Inspection Agency (CFIA), Ottawa
(e-mail: jennifer.roach@inspection.gc.ca)

CHINA

Chuanhong ZHANG (Ms.), Research Professor, Research Institute of Forestry, Chinese Academy of Forestry, Beijing
(e-mail: zhangch@caf.ac.cn)

Han FEI (Mr.), senior experimentalist, Wuhan Botanical Garden, Chinese Academy Of Sciences, Wuhan
(e-mail: hanfei@wbgcas.cn)

Ling GAO (Ms.), Associate Researcher, Danzhou Sub-center for DUS Tests of New Varieties of Plants, Ministry of Agriculture and Rural Affairs (MARA), Danzhou
(e-mail: gaoling_0898@163.com)

Jianfu JIANG (Mr.), Associate Researcher, Zhengzhou Fruits Station for DUS Tests of New Varieties of Plants, Ministry of Agriculture and Rural Affairs (MARA), Zhengzhou City
(e-mail: jiangjianfu@caas.cn)

Duan LINYUAN (Mr.), Research associate, Ningxia Academy of agriculture and Forestry Sciences, Yinchuan City
(e-mail: dly698013@163.com)

Hua DENG (Mr.), Assistant professor, Chinese Academy of Forestry, Beijing
(e-mail: denghua@caf.ac.cn)

Junyu WANG (Mr.), Research Assistant, Tea Research Institute, Chinese Academy of Agricultural Sciences
(e-mail: 786290026@qq.com)

Lingyi XU (Ms.), Research Assistant, Danzhou Sub-center for DUS Testing of New Varieties of Plants, Sanya Research Institute of Chinese Academy of Tropical Agriculture Science, Danzhou
(e-mail: lingyixu93@163.com)

Aiming YANG (Ms.), Level III Division Rank Official, NFGA, Beijing
(e-mail: 691716340@qq.com)

Erhuan WU (Ms.), national forestry and grassland administration, Beijing
(e-mail: 15706565211@163.com)

CZECH REPUBLIC

Andrea POVOLNÁ (Ms.), Head of DUS Department, National Plant Variety Office, Central Institute for Supervising and Testing in Agriculture (UKZUZ), Brno
(e-mail: andrea.povolna@ukzuz.cz)

Tomás JAN (Mr.), DUS Expert for fruit, Central Institute for Supervising and Testing in Agriculture (ÚKZÚZ), Brno
(e-mail: tomas.jan@ukzuz.cz)

Dusan NESRSTA (Mr.), DUS Expert for fruit, Central Institute for Supervising and Testing in Agriculture (ÚKZÚZ), Brno
(e-mail: dusan.nesrsta@ukzuz.cz)

ECUADOR

César GARCÍA (Sr.), Analista de validación agropecuaria, Dirección de Transferencia, Instituto Nacional de Investigaciones Agropecuarias (INIAP), Quito
(e-mail: cesar.garcia@iniap.gob.ec)

EGYPT

Shymaa ABOSHOSHA (Ms.), Agricultural Engineer, Plant Variety Protection Office (PVPO), Central Administration for Seed Testing and Certification (CASC), Giza
(e-mail: sh_z9@hotmail.com)

EUROPEAN UNION

Jean MAISON (Mr.), Deputy Head, Technical Unit, Community Plant Variety Office (CPVO), Angers
(e-mail: maison@cpvo.europa.eu)

Jens WEGNER (Mr.), Technical Expert for Ornamental Plants and Fruit Crops, Community Plant Variety Office (CPVO), Angers
(e-mail: wegner@cpvo.europa.eu)

FRANCE

Carole DIRWIMMER (Ms.), Head of the Fruit DUS sector, Groupe d'étude et de contrôle des variétés et des semences (GEVES), Beaucauzé
(e-mail: carole.dirwimmer@geves.fr)

Baptiste LEDERER (Mr.), Fruit Species DUS manager, Groupe d'étude et de contrôle des variétés et des semences (GEVES), Le Thor
(e-mail: baptiste.lederer@geves.fr)

Eric MARTIN (Mr.), Examineur DHS Abricot, prunes Japonaises, porte-greffes prunus, Institut national de recherche pour l'agriculture, l'alimentation et l'environnement (INRAE), Morières les Avignon
(e-mail: eric.martin.84@inrae.fr)

GEORGIA

Elene MAGHLAKELIDZE (Ms.), Chief specialist, Horticulture and Viticulture Research division, Scientific Research Center of Agriculture, Tbilisi
(e-mail: emaghlakelidze@yahoo.com)

GERMANY

Beate RÜCKER (Ms.), Head of Division, Bundessortenamt, Hanover
(e-mail: beate.ruecker@bundessortenamt.de)

Erik SCHULTE (Mr.), Head of Section 215 (Fruit, Gene banks), Testing Station Wurzen, Bundessortenamt, Wurzen
(e-mail: erik.schulte@bundessortenamt.de)

HUNGARY

Szilvia MÁRKNÉ DEÁK (Ms.), DUS Expert, Agricultural Genetic Resources Directorate, National Food Chain Safety Office (NÉBIH), Budapest
(e-mail: DeakSz@nebih.gov.hu)

Zsolt SZANI (Mr.), DUS Expert, Variety Testing Dept. for Horticultural Crops, National Food Chain Safety Office (NÉBIH), Budapest
(e-mail: szanizs@nebih.gov.hu)

ITALY

Fabio GERVASI (Mr.), Researcher and Head of the Examination Office, CREA-OFA, Council for Agricultural Research and Economics of Italy (CREA), Roma
(e-mail: fabio.gervasi@crea.gov.it)

Massimo GARDIMAN (Mr.), Senior Researcher, Research Centre for Viticulture and Enology, Council of Agricultural Research and Economics, Conegliano
(e-mail: massimo.gardiman@crea.gov.it)

Roberto CARRARO (Mr.), Researcher, CREA - Research Centre for Viticulture and Enology, Conegliano
(e-mail: roberto.carraro@crea.gov.it)

Flavio Roberto DE SALVADOR (Mr.), Senior Fruit Crops Consultant, Marino
(e-mail: fr.desalvador@gmail.com)

JAPAN

Yosuke ABE (Mr.), Senior Staff, Center for Seeds and Seedlings (NCSS), National Agriculture and Food Research Organization (NARO), Tsukuba
(e-mail: abey593@affrc.go.jp)

Koji NAKANISHI (Mr.), Assistant Examiner, Plant Variety Protection Office, Intellectual Property Division, Export and International Affairs Bureau, Tokyo
(e-mail: koji_nakanishi200@maff.go.jp)

KENYA

Gentrix Nasimiyu JUMA (Ms.), Principal Plant Examiner, Kenya Plant Health Inspectorate Service (KEPHIS), Nairobi
(e-mail: gjuma@kephis.org)

Lucas SUVA (Mr.), Principal Plant Examiner, Kenya Plant Health Inspectorate Service (KEPHIS), Nairobi
(e-mail: lsuva@kephis.org)

NETHERLANDS (KINGDOM OF THE)

Marco HOFFMAN (Mr.), Senior Policy Officer, Naktuinbouw, Roelofarendsveen
(e-mail: m.hoffman@naktuinbouw.nl)

NEW ZEALAND

Christopher J. BARNABY (Mr.), PVR Manager / Assistant Commissioner, Plant Variety Rights Office, Intellectual Property Office of New Zealand, Ministry of Business, Innovation and Employment, Christchurch
(e-mail: Chris.Barnaby@pvr.govt.nz)

Kylie MILLER (Ms.), Senior Plant Variety Rights Examiner, Plant Variety Rights Office, Intellectual Property Office of New Zealand, Ministry of Business, Innovation and Employment, Christchurch
(e-mail: Kylie.Miller@pvr.govt.nz)

POLAND

Marcin KRÓL (Mr.), Head of DUS Testing Department, Research Centre for Cultivar Testing (COBORU), Slupia Wielka
(e-mail: m.Krol@coboru.gov.pl)

Zofia STANISŁAWSKA (Ms.), Senior DUS Expert, DUS Testing Department, Research Centre for Cultivar Testing (COBORU), Slupia Wielka
(e-mail: z.stanislawski@coboru.gov.pl)

Tomasz PIOTROWSKI (Mr.), DUS Expert, Research Centre for Cultivar Testing (COBORU), Slupia Wielka
(e-mail: T.Piotrowski@coboru.gov.pl)

PORTUGAL

Anabela ROCHA (Ms.), Senior expert, Plant Breeder Rights Office and National List, Divisão de Variedades e Sementes (DVS), Direção-Geral de Alimentação e Veterinária (DGAV), Lisboa
(e-mail: anabelarocha@dgav.pt)

REPUBLIC OF KOREA

Dong-Jin PARK (Mr.), Researcher (DUS tester), National Forest Seed Variety Center (NFSV), Chungcheongbuk-do
(e-mail: djp0903@korea.kr)

Byeung-Hoon YANG, Researcher, National Forest Seed Variety Center (KFSV), Chungcheongbuk-do
(e-mail: time1227@korea.kr)

Chi Won CHAE (Mr.), DUS Examiner, Korea Seed and Variety Service (KSVS), Jeju-do
(e-mail: chaewho@korea.kr)

Lakjung CHOE (Mr.), DUS Examiner, Korea Seed & Variety Service (KSVS), Gyeongsangbuk-do
(e-mail: clj1216@korea.kr)

Keum-Soon PARK (Ms.), DUS Examiner, Korea Seed and Variety Service (KSVS), Gyeongsangbuk-do
(e-mail: ks1012@korea.kr)

REPUBLIC OF MOLDOVA

Evghenia PARTAS (Ms.), Head of DUS Testing Department, State Commission for Crops Variety Testing of the Republic of Moldova, Chisinau
(e-mail: e.partas@cstsp.md)

SLOVAKIA

Marianna JAKUBOVA (Ms.), DUS and International Cooperation, Central Control and Testing Institute in Agriculture (ÚKSÚP), Bratislava
(e-mail: marianna.jakubova@uksup.sk)

SOUTH AFRICA

Hendrik VENTER (Mr.), Scientist, Directorate Genetic Resources, Department of Agriculture, Land Reform and Rural Development, Stellenbosch
(e-mail: HennieV@dalrrd.gov.za)

Robyn HIERSE (Ms.), Scientist, Department of Agriculture, Land Reform and Rural Development, Stellenbosch
(e-mail: RobynH@dalrrd.gov.za)

Donavon SONNENBERG (Mr.), Agricultural Scientist, Department of Agriculture, Land Reform and Rural Development, Stellenbosch
(e-mail: DonovanS@Dalrrd.gov.za)

Luvuyo Michael KHOZA (Mr.), Scientist Production, Department of Agriculture, Land Reform and Rural Development, Stellenbosch
(e-mail: LuvuyoK@dalrrd.gov.za)

Xolani SIBOZA (Mr.), Scientist Production, Department of Agriculture, Land Reform and Rural Development, Pretoria
(e-mail: XolaniSi@dalrrd.gov.za)

TÜRKIYE

Mehmet ÇAKMAK (Mr.), PBR Expert, Senior Agricultural Engineer, Msc., Seed Department, General Directorate of Plant Production, Ministry of Agriculture and Forestry, Ankara
(e-mail: mehmet.cakmak@tarimorman.gov.tr)

UKRAINE

Nataliia HOLICHENKO (Ms.), Head, Department of International Cooperation and Support of the UPOV Council Representative, Ukrainian Institute for Plant Variety Examination, Kyiv
(e-mail: nataliia.holichenko@gmail.com)

Nataliya KOSTENKO (Ms.), Head, TG Development Section, DUS-test department, Ukrainian Institute for plant variety examination (UIPVE), Kyiv
(e-mail: kostenko_np@ukr.net)

Svitlana VASKIVSKA (Ms.), Head, Application Examination Department, Ukrainian Institute for Plant Variety Examination, Kyiv
(e-mail: sapfira_vsv@ukr.net)

Valentyna MATUS (Ms.), Head of sector, Ukrainian Institute for Plant Variety Examination, Kyiv
(e-mail: matysv@ukr.net)

Svitlana LIKAR (Ms.), Expert, Development section of DUS Test Department, Kyiv
(e-mail: luzenko4991@ukr.net)

UNITED KINGDOM

Margaret WALLACE (Ms.), Head of Agricultural Crop Characterisation, NIAB, Cambridge
(e-mail: margaret.wallace@niab.com)

UNITED STATES OF AMERICA

Bethany K. BORGIA (Ms.), Plant Variety Examiner, United States Department of Agriculture (USDA),
Washington D.C.
(e-mail: bethany.borgia@usda.gov)

II. OBSERVERS

MAURITIUS

Vedvyass Doobay MUDHOO (Mr.), Scientific Officer, National Plant Varieties and Seeds Office, Ministry of Agro
Industry and Food Security, Port Louis
(e-mail: vyassyam@gmail.com)

Indoomatee RAMMA (Ms.), Principal Research Scientist, Food and Agricultural Research and Extension Institute,
Reduit
(e-mail: agronomy@farei.mu)

SURINAME

Rinette Ngatinem SOEROPAWIRO (Ms.), Acting Head Seed-Unit Division, Chair of the National Seed Board, Sub
Directorate Agri-Health, Ministry of Agriculture, Animal Husbandry and Fisheries, Paramaribo
(e-mail: rinettesoeropawiro.lvv@gmail.com)

III. ORGANIZATIONS

INTERNATIONAL COMMUNITY OF BREEDERS OF ASEXUALLY REPRODUCED HORTICULTURAL PLANTS
(CIOPORA)

Sabrina ALCOFORADO GALE (Ms.), Junior Intellectual Property Lawyer, International Community of Breeders of
Asexually Reproduced Horticultural Plants (CIOPORA), Hamburg, Germany
(e-mail: sabrina.gale@ciopora.org)

David KARP (Mr.), Assistant Specialist, Department of Botany & Plant Sciences University of California, Riverside,
United States of America
(e-mail: dkarp@ucr.edu)

An VAN DEN PUTTE (Ms.), IP Manager, Better3fruit, Rillaar, Belgium
(e-mail: an@better3fruit.com)

INTERNATIONAL SEED FEDERATION (ISF)

Emerson LIMBERGER (Mr.), Technical Manager (Corteva Agriscience), Corteva Agriscience, Aussonne, France
(e-mail: emerson.limberger@corteva.com)

IV. OFFICERS

Carole DIRWIMMER (Ms.), Chair

V. OFFICE OF UPOV

Yolanda HUERTA (Ms.), Vice Secretary-General

Leontino TAVEIRA (Mr.), Director of Global Development and Technical Affairs

Manabu SUZUKI (Mr.), Technical/Regional Officer (Asia)

Kees VAN ETTEKOVEN (Mr.), Technical Expert

Romy OERTEL (Ms.), Secretary II

Jessica MAY (Ms.), Secretary I

[Annex II follows]

TWF/55/9

ANNEX II

LIST OF LEADING EXPERTS

**DRAFT TEST GUIDELINES TO BE SUBMITTED
TO THE TECHNICAL COMMITTEE IN 2024**

All requested information to be submitted to the Office of the Union

by July 19, 2024

Full draft Test Guidelines

Species	Basic Document(s)	Leading expert(s)
Grapevine (<i>Vitis</i> L.) (Revision)	TG/50/10(proj.7), TWF/55/6	Mr. Luca Aggio (IT)

DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWF/56

(* indicates possible final draft Test Guidelines)

**(Guideline date for Subgroup draft to be circulated by Leading Expert: March 14, 2025
Guideline date for comments to Leading Expert by Subgroup: April 11, 2025)**

New draft to be submitted to the Office of the Union
May 19, 2025

Full draft Test Guidelines

Species	Basic Document(s)	Leading expert(s)	Interested experts (States/Organizations) ¹
*Argania (<i>Argania spinosa</i> (L.) Skeels)	TG/ARGAN(proj.6)	Ms. Ibtihaj Belmehdi (MA)	IL, CIOPORA, Office
European Pear (<i>Pyrus communis</i> L.) (Revision)	TG/15/3	Mr. Erik Schulte (DE)	AU, CA, FR, IT, JP, NZ, QZ, ZA, CIOPORA, Office
*Goji (<i>Lycium barbarum</i> L., <i>L. chinense</i> Mill., <i>L. cylindricum</i> Kuang & A. M. Lu, <i>L. dasystemum</i> Pojark., <i>L. ruthenicum</i> Murray, <i>L. truncatum</i> Y. C. Wang, <i>L. yunnanense</i> Kuang & A. M. Lu)	TG/LYCIUM_BAR (proj.4)	Ms. Chuanhong Zhang (CN)	AU, DE, GE, KR, QZ, CIOPORA, Office
*Guava (<i>Psidium guajava</i> L.; <i>Psidium cattleyanum</i> Sabine var. <i>littorale</i> (Raddi) Fosberg) (Revision)	TG/110/4(proj.3)	Ms. Ling Gao (CN)	BR, KE, KR, MX, MY, QZ, CIOPORA, Office
*Hazelnut (<i>Corylus avellana</i> L.; <i>Corylus colurna</i> L.) (Revision)	TG/71/4(proj.5)	Mr. Flavio Roberto de Salvador (IT)	TWO, AU, CA, CN, CZ, DE, ES, GE, HU, QZ, CIOPORA, Office
Japanese Pear (<i>Pyrus pyrifolia</i> (Burm. f.) Nakai var. <i>culta</i> (Mak.) Nakai) (Revision)	TG/149/3(proj.1)	Mr. Koji Nakanishi (JP)	AU, CZ, FR, GE, HU, KR, NZ, QZ, CIOPORA, Office
Japanese Plum (<i>Prunus salicina</i> Lindl.; hybrids between <i>Prunus salicina</i> and <i>Prunus armeniaca</i>) (Revision)	TG/84/5(proj.1)	Ms. Carole Dirwimmer (FR)	AU, CZ, GE, HU, IT, JP, KR, NZ, QZ, ZA, CIOPORA, Office
*Granadilla, Passion fruit (<i>Passiflora edulis</i> Sims) (Revision)	TG/256/2(proj.2)	Mr. Barkat Mustafa (AU)	TWO, CN, ES, JP, KR, QZ, ZA, CIOPORA, Office

Partial revisions

Species	Basic Document(s)	Leading expert(s)	Interested experts (States/Organizations) ²
Blueberry (Partial revision: Char. 24; addition of three new char.)	TG/137/5	Ms. Nahida Bhuiyan (AU), Mr. Chris Barnaby (NZ)	AU, CA, CN, CZ, GE, HU, IT, JP, KE, KR, MX, NZ, PL, PT, QZ, ZA, CIOPORA, Office

¹ for name of experts, see List of Participants

² for name of experts, see List of Participants

Possible Test Guidelines to be discussed in the future

Species	Basic Document(s)
Carambola (<i>Averrhoa carambola</i> L.)	NEW
Cape Gooseberry (<i>Physalis peruviana</i> L.)	NEW
Date Palm (<i>Phoenix dactylifera</i>)	TG/PHOEN_DAC(proj.1) (IL)
Soursop (<i>Annona muricata</i> L.)	NEW
Lemon (Lemons and Limes (<i>Citrus</i> L. - Group 3)) (Revision)	TG/203/2(proj.2)
Mandarin (<i>Citrus</i> L. – Group 1) (Revision)	TG/201/2(proj.2)
Trifoliolate Orange ((<i>Poncirus</i>) (<i>Citrus</i> L. - Group 5)) (Revision)	TG/83/5(proj.2)
Oranges (<i>Citrus</i> L. - Group 2) (Partial revision: move relevant botanical names from the “principle botanical names” box to the “alternative botanical names” box, TQ 4.2) (Partial revision)	TG/202/1 Rev. 2, TC/57/11, Annex III
Pummelo (Grapefruit and) (<i>Citrus</i> L. - Group 4) (Partial revision: move relevant botanical names from the “principle botanical names” box to the “alternative botanical names” box, TQ 4.2) (Partial revision)	TG/204/1 Rev. 2, TC/57/11, Annex III

[End of Annex II and of document]